FIGURE 1A

```
bitterbush_[SIN_2]       MEEPK-----------------------KHISQADLAKHKQPGDLWISIKGKVYDISKW
soybean_[SIN_8]          M-----------------EVVEKEK------KYITSEELKGHNKEGDLWISIQGKVYNVSDW
borage_[gi_2062403]      MA--------A------QIK----KYITSDELKNHDKPGDLWISIQGKAYDVSDW
corn_[SIN_4]             MP--------PSVDAMPAPGDAAGAGDVRMISSKELRAHASADDLWISISGDVYDVTPW
wheat_[SIN_10]           MARTGLADATAPEADAMPAASK--DAADVRMISTKELQAHAAADDLWISISGDVYDVTPW
wheat_[gi_4104056]       MARTGLADATAPEADAMPAASK--DAADVRMISTKELQAHAAADDLWISISGDVYDVTPW
soybean_[SIN_6]          LP-------A-----------------------------------------
sunflower_[gi_1040729]   MV--------SPSIEVLNSIADGK------KYITSKELKKHNNPNDLWISILGKVYNVTEW

bitterbush_[SIN_2]       TKEHPGGELPLLSFAGQDVTDAFIAYHPGTAWQYLDRFFTGYYVQDYSVSEMSKDYRRLV
soybean_[SIN_8]          VKEHPGGDVPISNLAGQDVTDAFIAYHPGTAWSHLEKFFTGYHLSDFKVSEVSKDYRKLA
borage_[gi_2062403]      VKDHPGGSFPLKSLAGQEVTDAFVAFHPASTWKNLDKFFTGYYLKDYSVSEVSKDYRKLV
corn_[SIN_4]             LPHHPGGDLPLLTLAGQDATDAFAAYHPPSARPLLRRFFVG-RLSDYAVSPASADYRLL
wheat_[SIN_10]           LRHHPGGEVPLITLAGQDATDAFMAYHPPSVRPLLRRFFVG-RLSDYTVPPASADFRRLL
wheat_[gi_4104056]       LRHHPGGEVPLITLAGQDATDAFMAYHPPSVRPLLRRFFVG-RLTDYTVPPASADFRRLL
soybean_[SIN_6]          ---------------FSTSHRLSDHTVSAASSDYRKLF
sunflower_[gi_1040729]   AKEHPGGDAPLINLAGQDVTDAFIAFHPGTAWKHLDKLFTGYHLKDYQVSDISRDYRKLA

bitterbush_[SIN_2]       SEFSKMGLFKTPGKGVYCSIFFVSVLFALSVYGVLYCKSTWAHLCSGLLMGMLWLQSGWV
soybean_[SIN_8]          SEFSKLGLFDTKGHVTSCTLASVAVMFLIVLYGVLRCTSVWAHLGSGMLLGLLWMQSAYV
borage_[gi_2062403]      FEFSKMGLYDKKGHIMFATLCFIAMLFAMSVYGVLFCEGVLVHLFSGCLMGFLWIQSGWI
corn_[SIN_4]             AQLSSAGLFERVGPTPKVQLVLMAVLFYAALYLVLACASAWAHLLAGGLIGFVWIQSGWM
wheat_[SIN_10]           AQLSSAGLFERVGHTPKFLLVAMSVLFCIALYCVLACSSTGAHMFAGGLIGFIWIQSGWI
wheat_[gi_4104056]       AQLSSAGLFERVGHTPKFLLVAMSVLFCIALYCVLACSSTGAHMFAGGLIGFIWIQSGWI
soybean_[SIN_6]          SDLSALNLFNRKGHTTSILLSLILTLFPLSVCGVLFSDSTFVHVLSAALIGFLWIQSGWI
sunflower_[gi_1040729]   SEFAKAGMFEKKGHGVIYSLCFVSLLLSACVYGVLYSGSFWIHMLSGAILGLAWMQIAYL
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FIGURE 1B

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bitterbush_[SIN_2]       GHDSCHYQVMPNRKLNRLFQIIAGNVIAGVSVAWWKLDHNTHHFACNSANLDPDIQHLPI
soybean_[SIN_8]          GHDSGHYVVMTINGFNKVAQILSGNCLTGISIAWWKWTHNAHHIACNSLDHDPDLQHMPV
borage_[gi_2062403]      GHDAGHYMVVSDSRLNKFMGIFAANCLSGISIGWWKWNHNAHHIACNSLEYDPDLQYIPF
corn_[SIN_4]             GHDSGHHRITGHPVLDRVVQVLSGNCLTGLSIAWWKCNHNTHHIACNSLDHDPDLQHMPL
wheat_[SIN_10]           GHDSGHHQITRHPALNRLLQVVSGNCLTGLGIAWWKFNHNTHHISCNSLDHDPDLQHLPL
wheat_[gi_4104056]       GHDSGHHQITRHPALNRLLQVVSGNCLTGLGIAWWKFNHNTHHISCNSLDHDPDLQHLPL
soybean_[SIN_6]          GHDSGHYNVMLSRRLNRAIQILSGNILAGISIGWWKWNHNAHHIACNSLDYDPDLQHMPV
sunflower_[gi_1040729]   GHDAGHYQMMATRGWNKFAGIFIGNCITGISIAWWKWTHNAHHIACNSLDYDPDLQHLPM

bitterbush_[SIN_2]       IAISPKFFNSLTSYYHNCKMTYDRAARFFVSFQHWTFYPALLSVRLYLFILSFKVVFSNN
soybean_[SIN_8]          FAVSSRFFNSITSHFYGRKLEFDFIARFLICYQHFTFYPVMCVARVNLYLQTILLLFSR-
borage_[gi_2062403]      LVVSSKFFGSLTSHFYEKRLTFDSLSRFFVSYQHWTFYPIMCAARLNMYVQSLIMLLTK-
corn_[SIN_4]             FAVSPKLFGNIWSYFYQRTLAFDAASKFFISYQHWTFYPVMCIARINLLAQSALFVLTE-
wheat_[SIN_10]           FAVSTKLFNNLWSVCYERTLAFDAISKFFVSYQHWTFYPVMGFARINLLVQSIVFLITQ-
wheat_[gi_4104056]       FAVSTKLFNNLWSVCYERTLAFDAISKFFVSYQHWTFYPVMGFARINLLVQSIVFLITQ-
soybean_[SIN_6]          FAVSSRFFNSITSHXYGRKXEFDXIAXFLICYQHFTFYPVMCVARVNLYLQTILLLFSR-
sunflower_[gi_1040729]   LAVSSKLFNSITSVFYGRQLTFDPLARFFVSYQHYLYYPIMCVARVNLYLQTILLLISK-

bitterbush_[SIN_2]       KRVYKRSQEILGYAAFLTWYSLLLSRLPNWPERVMYFTSCLAVAGFQHWQFSLNHFASNV
soybean_[SIN_8]          RKVQDRALNIMGILVFWTWFPLLVSCLPNWPERVMFVLASFAVCSIQHIQFCLNHFAANV
borage_[gi_2062403]      RNVSYRAHELLGCLVFSIWYPLLVSCLPNWGERIMFVIASLSVTGMQQVQFSLNHFSSSV
corn_[SIN_4]             KRVPQRLLEIAGVATFWAWYPLLVASLPNWWERVAFVLFSFTICGIQHVQFCLNHFSSDV
wheat_[SIN_10]           KKVRQRWLEIAGVAAFWVWYPLLVSCLPNWWERVAFVLASFVITGIQHVQFCLNHFSSAV
wheat_[gi_4104056]       KKVRQRWLEIAGVAAFWVWYPLLVSCLPNWWERVAFVLASFVITGIQHVQFCLNHFSSAV
soybean_[SIN_6]          XKVQDRALNIMGILVFWTWFLFLLA------LLFV------PIQHIQFWLNHLAENL
sunflower_[gi_1040729]   RKIPDRGLNILGTLIFWTWFPLLVSRLPNWPERVAFVLVSFCVTGIQHIQFTLNHFSGDV
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FIGURE 1C

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bitterbush_[SIN_2]        YTGLPSGNDWFHQQTKGTLNITASAWWDWFHGGLHFQIEHHLFPRMPKCHFRKISPIVNK
soybean_[SIN_8]           YVGPPSGNDWFEKQTSGTLDISCASSMDWFFGGLQFQLEHHLFPRLPRCQLRKISPLVSD
borage_[gi_2062403]       YVGKPKGNNWFEKQTDGTLDISCPPWMDWFHGGLQFQIEHHLFPKMPRCNLRKISPYVIE
corn_[SIN_4]              YVGPPKGNDWFEKQTAGTLDILCSPWMDWFHGGLQFQIEHHLFPRLPRCHLRKVAPAVRD
wheat_[SIN_10]            YVGPPKGNDWFERQTAGTLDIKCSPWMDWFHGGLQFQVEHHLFPRLPRCHYRMVAPIVRD
wheat_[gi_4104056]        YVGPPKGNDWFERQTAGTLDIKCSPWMDWFHGGLQFQVEHHLFPRLPRCHYRMVAPIVRD
soybean_[SIN_6]           YXG---------------------------------------------------------
sunflower_[gi_1040729]    YVGPPKGDNWFEKQTRGTIDIACSSWMDWFFGGLQFQLEHHLFPRLPRCHLRSISPICRE


bitterbush_[SIN_2]        LCQKHNLSYETATMWEANKMVYSTLRAVAMEAKDVTK-PVPKNMVWEAMNTFG
soybean_[SIN_8]           LCKKHNLPYRSLSFWEANQWTIRTLRTAALQARDLTN-PAPKNLLWEAVNTHG
borage_[gi_2062403]       LCKKHNLPYNYASFSKANEMTLRTLRNTALQARDITK-PLPKNLVWEALHTHG
corn_[SIN_4]              LCKKHGLTYSAATFWGANVLTWKTLRAAALQARTATSGGAPKNLVWEAVNTHG
wheat_[SIN_10]            LCKKHGLSYGAATFWEANVMTWKTLRAAALQAREATTGAAPKNLVWEALNTHG
wheat_[gi_4104056]        LCKKHGLSYGAATFWEANVMTWKTLRAAALQAREATTGAAPKNLVWEALNTHG
soybean_[SIN_6]           -----------------------------------------------------
sunflower_[gi_1040729]    LCKKYNLPYVSLSFYDANVTTLKTLRTAALQARDLTN-PAPQNLAWEAFNTHG
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